



Form PTO-1449 (modified)

List of Patents and Publications for Applicant's

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Atty. Docket No.

UTSC:657US

Serial No.

09/883,109

Applicant

Peter Gascoyne *et al.*

Filing Date:

June 14, 2001

Group:

1741

U.S. Patent Documents

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Foreign Patent Documents

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Other Art

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## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
6	A1	4,333,086	6/1/82	Ebi	346	140	6/18/80
	A2	4,390,403	6/28/83	Batchelder	204	180	7/24/81
	A3	5,126,022	6/30/92	Soane <i>et al.</i>	204	180.1	2/28/90
	A4	5,344,535	9/6/94	Betts <i>et al.</i>	204	183.1	4/27/93
	A5	5,454,472	10/3/95	Benecke <i>et al.</i>	209	127.1	8/19/92
	A6	5,486,337	1/23/96	Ohkawa	422	100	2/18/94
	A7	5,569,367	10/29/96	Betts <i>et al.</i>	204	547	1/27/95
	A8	5,571,401	11/5/96	Lewis <i>et al.</i>	205	787	3/27/95
	A9	5,593,290	1/14/97	Greisch <i>et al.</i>	417	478	12/22/94
	A10	5,632,957	5/27/97	Heller <i>et al.</i>	422	68.1	9/9/94
	A11	5,653,859	8/5/97	Parton <i>et al.</i>	204	450	1/21/94
	A12	5,683,569	11/4/97	Chung <i>et al.</i>	205	775	2/28/96
	A13	5,795,457	8/18/98	Pethig <i>et al.</i>	204	547	6/5/95
	A14	5,814,200	9/29/98	Pethig <i>et al.</i>	204	547	3/31/94
	A15	5,858,192	1/12/99	Becker <i>et al.</i>	204	547	10/18/96
	A16	5,888,370	1/12/99	Becker <i>et al.</i>	204	547	10/18/96
	A17	5,965,452	10/12/99	Kovacs	436	149	7/9/96
	A18	5,993,630	11/30/99	Becker <i>et al.</i>	204	547	1/31/96
	A19	5,993,631	11/30/99	Parton <i>et al.</i>	204	547	7/8/97
	A20	5,993,632	11/30/99	Becker <i>et al.</i>	204	547	2/1/99
	A21	6,010,616	1/4/00	Lewis <i>et al.</i>	205	787	12/8/97
	A22	6,017,696	1/25/00	Heller	435	6	7/7/94
	A23	6,024,925	2/15/00	Little <i>et al.</i>	422	100	1/23/97

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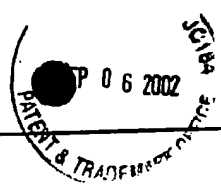
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U.S. Patent Documents

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6	A24	6,090,251	7/18/00	Sundberg <i>et al.</i>	204	453	6/6/97
	A25	6,093,308	7/25/00	Lewis <i>et al.</i>	205	787	2/26/99
	A26	6,099,803	8/8/00	Ackley <i>et al.</i>	422	68.1	2/20/98
	A27	6,113,768	9/5/00	Fuhr <i>et al.</i>	204	643	12/23/94
	A28	6,129,828	10/10/00	Sheldon, III <i>et al.</i>	204	518	9/6/96
	A29	6,130,098	10/10/00	Handique <i>et al.</i>	436	180	9/26/97
	A30	6,159,188	12/12/00	Laibovitz <i>et al.</i>	604	294	11/2/98
	A31	6,165,417	12/26/00	Swierkowski	422	100	10/26/98
	A32	6,221,653 B1	4/24/01	Caren <i>et al.</i>	435	287.2	4/27/99
	A33	6,224,745 B1	5/1/01	Baltruschat	205	775	3/5/98
	A34	6,225,059 B1	5/1/01	Ackley <i>et al.</i>	435	6	1/29/99
	A35	6,287,832 B1	9/11/01	Becker <i>et al.</i>	435	173.9	9/14/99
6	A36	6,294,063 B1	9/25/01	Becker <i>et al.</i>	204	450	2/12/99

Foreign Patent Documents.

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
6	B1	EP 0513064	11/19/92	Europe			
6	B2	EP 0625267	11/23/94	Europe			
6	B3	EP 0680380	11/8/95	Europe			
6	B4	EP 0691891	1/17/96	Europe			
6	B5	EP 0898493	3/3/99	Europe			
6	B6	WO 00/47322	8/17/00	PCT			
6	B7	WO 00/69565	11/23/00	PCT			

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Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
Q	B8	WO 93/16383	8/19/93	PCT			
	B9	WO 94/16821	8/4/94	PCT			
	B10	WO 97/34689	9/25/97	PCT			
	B11	WO 99/36176	7/22/99	PCT			
	B12	WO 99/62622	12/9/99	PCT			

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
Q	C1	"Bangor biochip heads for California," EPSRC Home Page: <a href="http://www.epsrc.ac.uk/documents/about_epsrc/corporate_publications/bangor.ht">http://www.epsrc.ac.uk/documents/about_epsrc/corporate_publications/bangor.ht</a> , article printed on December 26, 2000.
Q	C2	"Diagnostic dielectrophoresis-on-a-chip," <i>Science/Technology</i> , 77(8):32, 1999. Article printed from <a href="http://pubs.acs.org/hotartcl/cenear/99022/7708scitobox2.html">http://pubs.acs.org/hotartcl/cenear/99022/7708scitobox2.html</a> on December 26, 2000.
Q	C3	Allsopp <i>et al.</i> , "Impedance technique for measuring dielectrophoretic collection of microbiological particles," <i>J. Phys. D: Appl. Phys.</i> , 32:1066-1074, 1999.
Q	C4	Balachandran <i>et al.</i> , "Electrostatic atomization of conducting liquids using AC superimposed on DC fields," <i>IEEE Transactions on Industry Applications</i> , 30(4):850-854, 1994.
Q	C5	Cheng <i>et al.</i> , "Preparation and hybridization analysis of DNA/RNA from <i>E. coli</i> on microfabricated bioelectronic chips," <i>Nature Biotechnology</i> , 16:541-546, 1998.
Q	C6	El-Kishky and Gorur, "Electric field and energy computation on wet insulating surfaces," <i>IEEE Transaction on Dielectrics and Electrical Insulation</i> , 3(4):587-593, 1996.
Q	C7	El-Kishky and Gorur, "Electric field computation on an insulating surface with discrete water droplets," <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 3(3):450-456, 1996.
Q	C8	Fuller <i>et al.</i> , "Microfabricated multi-frequency particle impedance characterization system," <i>Micro Total Analysis System</i> , van den Berg <i>et al.</i> (eds.), 265-268, 2000.
Q	C9	Galicki <i>et al.</i> , "Electrohydrodynamic atomization of dielectric fluids," <i>Conference on Electrical Insulation and Dielectric Phenomena</i> , IEEE Annual Report, 365-368, 1996.

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## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
b	C10	Gawad <i>et al.</i> , "Impedance spectroscopy cell analysis in microchannels," <i>Micro Total Analysis Systems</i> , 253-255, 2001.
b	C11	Gawad <i>et al.</i> , "Micronarcined impedance spectroscopy flow cytometer for cell analysis and particle sizing," <i>Lab on a Chip</i> , 1:76-82, 2001.
b	C12	He <i>et al.</i> , "Droplet charge-to-mass ratio measurement in an EHD liquid-liquid extraction system," <i>IEEE Transactions on Industry Applications</i> , 32(1):146-154, 1996.
b	C13	Higashiyama <i>et al.</i> , "Behavior of water droplets located on a hydrophobic insulating plate under DC field," <i>IEEE</i> , 1808-1813, 1998.
b	C14	Hoffman and Britt, "Flow-system measurement of a cell impedance properties," <i>J. Histochemistry and Cytochemistry</i> , 27:234-240, 1979.
b	C15	Hoffman <i>et al.</i> , "Flow cytometric electronic direct current volume and radiofrequency impedance measurements of single cells and particles," <i>Cytometry</i> , 1:377-384, 1981.
b	C16	Hosokawa <i>et al.</i> , "Handling of picoliter liquid samples in a Poly(dimethylsiloxane)-based microfluidic device," <i>Anal. Chem.</i> , 71:4781-4785, 1999.
b	C17	Hunetti <i>et al.</i> , "Harmonic spraying of conducting liquids employing AC-DC electric fields," <i>IEEE Transactions on Industry Applications</i> , 34(2):279-285, 1998.
b	C18	Jones, <i>Electromechanics of Particles</i> , Cambridge University Press, Cambridge, Chapter 3:34-82, 1995.
b	C19	Kashyap and Gratzl, "Electrochemistry in microscopic domains. 1. The electrochemical cell and its voltammetric and amperometric response," <i>Anal. Chem.</i> , 70:1468-1476, 1998.
b	C20	Kloes and Koenig, "Basic investigation of the performance of droplets on electrically stressed polymer surfaces," <i>Conference on Electrical Insulation and Dielectric Phenomena</i> , IEEE Annual Report, 374-377, 1997.
b	C21	Lee and Kim, "Liquid micromotor driven by continuous electrowetting," <i>IEEE</i> , 538-543, 1998.
b	C22	Metwally, "Electrostatic charging and modeling of aqueous sprays and fission of droplets," <i>Conference on Electrical Insulation and Dielectric Phenomena</i> , IEEE Annual Report, 117-120, 1996.
b	C23	Mizuno <i>et al.</i> , "Behavior of water droplets on silicone rubber sheet under AC voltage application," <i>IEEE</i> , 96-99, 1998.

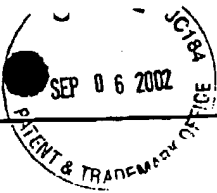
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Exam. Init.	Ref. Des.	Citation
6	C24	Moesner <i>et al.</i> , "Electrostatic devices for particle microhandling," <i>IEEE Transactions on Industry Applications</i> , 35(3):530-536, 1999.
1	C25	Sathuvalli and Bayazitoglu, "The lorentz forces on an electrically conducting sphere in an alternating magnetic field," <i>IEEE Transactions on Magnetics</i> , 32(2):386-399, 1996.
	C26	Sato <i>et al.</i> , "Experimental investigation of droplet formation mechanisms by electrostatic dispersion in a liquid-liquid system," <i>IEEE Transactions on Industry Applications</i> , 33(6):1527-1534, 1997.
	C27	Sato <i>et al.</i> , "Production of oil/water type uniformly sized droplets using a convergent AC electric field," <i>IEEE Transactions on Industry Applications</i> , 32(1):138-145, 1996.
	C28	Wang <i>et al.</i> , "A theoretical method of electrical field analysis for dielectrophoretic electrode arrays using Green's theorem," <i>J. Phys. D: Appl. Phys.</i> , 29:1649-1660, 1996.
	C29	Wang <i>et al.</i> , "Separation of polystyrene microbeads using dielectrophoretic/gravitational field-flow-fractionation," <i>Biophysical Journal</i> , 74:2689-2701, 1998.
	C30	Washizu, "Electrostatic actuation of liquid droplets for microreactor applications," <i>IEEE Transactions on Industry Applications</i> , 34(4):732-737, 1998.
	C31	Co-Pending U.S. Patent Application Serial Number 10/028,945 by Peter Gascoyne <i>et al.</i> , filed December 20, 2001.

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